

for which the actuarial valuation is made and subsequent periods.

(b) *Valuation of the assets of a pension plan.* The actuarial value of the assets of a pension plan shall be determined under an asset valuation method which takes into account unrealized appreciation and depreciation of the market value of the assets of the pension plan, including the accumulated value of permitted unfunded accruals, and shall be used in measuring the components of pension costs.

(c) *Allocation of pension cost to segments.* Contractors shall allocate pension costs to each segment having participants in a pension plan. A separate calculation of pension costs for a segment is required when the conditions set forth in 9904.413-50(c)(2) or (3) are present. When these conditions are not present, allocations may be made by calculating a composite pension cost for two or more segments and allocating this cost to these segments by means of an allocation base. When pension costs are separately computed for a segment or segments, the provisions of Cost Accounting Standard 9904.412 regarding the assignable cost limitation shall be based on the assets and liabilities for the segment or segments for purposes of such computations. In addition, the amount of pension cost assignable to a segment or segments shall not exceed the maximum tax-deductible amount computed for the plan as a whole and apportioned among the segment(s).

[57 FR 14153, Apr. 17, 1992, as amended at 60 FR 16550, Mar. 30, 1995]

#### **9904.413-50 Techniques for application.**

(a) *Assignment of actuarial gains and losses.* (1) In accordance with the provisions of Cost Accounting Standard 9904.412, actuarial gains and losses shall be identified separately from other unfunded actuarial liabilities.

(2) Actuarial gains and losses determined under a pension plan whose costs are measured by an immediate-gain actuarial cost method shall be amortized over a 15 year period in equal annual installments, beginning with the date as of which the actuarial valuation is made. The installment for a cost accounting period shall consist

of an element for amortization of the gain or loss plus an element for interest on the unamortized balance at the beginning of the period. If the actuarial gain or loss determined for a cost accounting period is not material, the entire gain or loss may be included as a component of the current or ensuing year's pension cost.

(3) Pension plan terminations and curtailments of benefits shall be subject to adjustment in accordance with 9904.413-50(c)(12).

(b) *Valuation of the assets of a pension plan.* (1) The actuarial value of the assets of a pension plan shall be used:

(i) In measuring actuarial gains and losses, and

(ii) For purposes of measuring other components of pension cost.

(2) The actuarial value of the assets of a pension plan may be determined by the use of any recognized asset valuation method which provides equivalent recognition of appreciation and depreciation of the market value of the assets of the pension plan. However, the actuarial value of the assets produced by the method used shall fall within a corridor from 80 to 120 percent of the market value of the assets, determined as of the valuation date. If the method produces a value that falls outside the corridor, the actuarial value of the assets shall be adjusted to equal the nearest boundary of the corridor.

(3) The method selected for valuing pension plan assets shall be consistently applied from year to year within each plan.

(4) The provisions of paragraphs (b) (1) through (3) of this subsection are not applicable to plans that are treated as defined-contribution plans in accordance with 9904.412-50(a)(6).

(5) The market and actuarial values of the assets of a pension plan shall not be adjusted for any fee, reserve charge, or other investment charge for withdrawals from or termination of an investment contract, trust agreement, or other funding arrangement, unless such fee is determined in an arm's length transaction, and actually incurred and paid.

(c) *Allocation of pension cost to segments.* (1) For contractors who compute a composite pension cost covering plan

participants in two or more segments, the base to be used for allocating such costs shall be representative of the factors on which the pension benefits are based. For example, a base consisting of salaries and wages shall be used for pension costs that are calculated as a percentage of salaries and wages; a base consisting of the number of participants shall be used for pension costs that are calculated as an amount per participant. If pension costs are separately calculated for one or more segments, the contractor shall make a distribution among the segments for the maximum tax-deductible amount and the contribution to the funding agency as follows:

(i) When apportioning the maximum tax-deductible amount, which is determined for a qualified defined-benefit pension plan as a whole pursuant to the Employee Retirement Income Security Act of 1974 (ERISA), 29 U.S.C. 1001 *et seq.*, as amended, to segments, the contractor shall use a base that considers the otherwise assignable pension costs or the funding levels of the individual segments.

(ii) When apportioning amounts deposited to a funding agency to segments, contractors shall use a base that is representative of the assignable pension costs, determined in accordance with 9904.412-50(c) for the individual segments. However, for qualified defined-benefit pension plans, the contractor may first apportion amounts funded to the segment or segments subject to this Standard.

(2) Separate pension cost for a segment shall be calculated whenever any of the following conditions exist for that segment, provided that such condition(s) materially affect the amount of pension cost allocated to the segment:

(i) There is a material termination of employment gain or loss attributable to the segment,

(ii) The level of benefits, eligibility for benefits, or age distribution is materially different for the segment than for the average of all segments, or

(iii) The appropriate actuarial assumptions are, in the aggregate, materially different for the segment than for the average of all segments. Calculations of termination of employ-

ment gains and losses shall give consideration to factors such as unexpected early retirements, benefits becoming fully vested, and reinstatements or transfers without loss of benefits. An amount may be estimated for future reemployments.

(3) Pension cost shall also be separately calculated for a segment under circumstances where—

(i) The pension plan for that segment becomes merged with that of another segment, or the pension plan is divided into two or more pension plans, and in either case,

(ii) The ratios of market value of the assets to actuarial accrued liabilities for each of the merged or separated plans are materially different from one another after applying the benefits in effect after the pension plan merger or pension plan division.

(4) For a segment whose pension costs are required to be calculated separately pursuant to paragraphs (c) (2) or (3) of this subsection, such calculations shall be prospective only; pension costs need not be redetermined for prior years.

(5) For a segment whose pension costs are either required to be calculated separately pursuant to paragraph (c)(2) or (c)(3) of this subsection or calculated separately at the election of the contractor, there shall be an initial allocation of a share in the undivided market value of the assets of the pension plan to that segment, as follows:

(i) If the necessary data are readily determinable, the funding agency balance to be allocated to the segment shall be the amount contributed by, or on behalf of, the segment, increased by income received on such assets, and decreased by benefits and expenses paid from such assets. Likewise, the accumulated value of permitted unfunded accruals to be allocated to the segment shall be the amount of permitted unfunded accruals assigned to the segment, increased by interest imputed to such assets, and decreased by benefits paid from sources other than the funding agency; or

(ii) If the data specified in paragraph (c)(5)(i) of this subsection are not readily determinable for certain prior periods, the market value of the assets of

the pension plan shall be allocated to the segment as of the earliest date such data are available. Such allocation shall be based on the ratio of the actuarial accrued liability of the segment to the plan as a whole, determined in a manner consistent with the immediate gain actuarial cost method or methods used to compute pension cost. Such assets shall be brought forward as described in paragraph (c)(7) of this subsection.

(iii) The actuarial value of the assets of the pension plan shall be allocated to the segment in the same proportion as the market value of the assets.

(6) If, prior to the time a contractor is required to use this Standard, it has been calculating pension cost separately for individual segments, the amount of assets previously allocated to those segments need not be changed.

(7) After the initial allocation of assets, the contractor shall maintain a record of the portion of subsequent contributions, permitted unfunded accruals, income, benefit payments, and expenses attributable to the segment and paid from the assets of the pension plan: Income and expenses shall include a portion of any investment gains and losses attributable to the assets of the pension plan. Income and expenses of the pension plan assets shall be allocated to the segment in the same proportion that the average value of assets allocated to the segment bears to the average value of total pension plan assets for the period for which income and expenses are being allocated.

(8) If plan participants transfer among segments, contractors need not transfer assets or actuarial accrued liabilities unless a transfer is sufficiently large to distort the segment's ratio of pension plan assets to actuarial accrued liabilities determined using the accrued benefit cost method. If assets and liabilities are transferred, the amount of assets transferred shall be equal to the actuarial accrued liabilities, determined using the accrued benefit cost method, transferred.

(9) Contractors who separately calculate the pension cost of one or more segments may calculate such cost either for all pension plan participants assignable to the segment(s) or for only

the active participants of the segment(s). If costs are calculated only for active participants, a separate segment shall be created for all of the inactive participants of the pension plan and the cost thereof shall be calculated. When a contractor makes such an election, assets shall be allocated to the segment for inactive participants in accordance with paragraphs (c) (5), (6), and (7) of this subsection. When an employee of a segment becomes inactive, assets shall be transferred from that segment to the segment established to accumulate the assets and actuarial liabilities for the inactive plan participants. The amount of assets transferred shall be equal to the actuarial accrued liabilities, determined under the accrued benefit cost method, for these inactive plan participants. If inactive participants become active, assets and liabilities shall similarly be transferred to the segments to which the participants are assigned. Such transfers need be made only as of the last day of a cost accounting period. The total annual pension cost for a segment having active employees shall be the amount calculated for the segment plus an allocated portion of the pension cost calculated for the inactive participants. Such an allocation shall be on the same basis as that set forth in paragraph (c)(1) of this subsection.

(10) Where pension cost is separately calculated for one or more segments, the actuarial cost method used for a plan shall be the same for all segments. Unless a separate calculation of pension cost for a segment is made because of a condition set forth in paragraph (c)(2)(iii) of this subsection, the same actuarial assumptions may be used for all segments covered by a plan.

(11) If a pension plan has participants in the home office of a company, the home office shall be treated as a segment for purposes of allocating the cost of the pension plan. Pension cost allocated to a home office shall be a part of the costs to be allocated in accordance with the appropriate requirements of Cost Accounting Standard 9904.403.

(12) If a segment is closed, if there is a pension plan termination, or if there is a curtailment of benefits, the contractor shall determine the difference

between the actuarial accrued liability for the segment and the market value of the assets allocated to the segment, irrespective of whether or not the pension plan is terminated. The difference between the market value of the assets and the actuarial accrued liability for the segment represents an adjustment of previously-determined pension costs.

(i) The determination of the actuarial accrued liability shall be made using the accrued benefit cost method. The actuarial assumptions employed shall be consistent with the current and prior long term assumptions used in the measurement of pension costs. If there is a pension plan termination, the actuarial accrued liability shall be measured as the amount paid to irrevocably settle all benefit obligations or paid to the Pension Benefit Guarantee Corporation.

(ii) In computing the market value of assets for the segment, if the contractor has not already allocated assets to the segment, such an allocation shall be made in accordance with the requirements of paragraphs (c)(5) (i) and (ii) of this subsection. The market value of the assets shall be reduced by the accumulated value of prepayment credits, if any. Conversely, the market value of the assets shall be increased by the current value of any unfunded actuarial liability separately identified and maintained in accordance with 9904.412-50(a)(2).

(iii) The calculation of the difference between the market value of the assets and the actuarial accrued liability shall be made as of the date of the event (e.g., contract termination, plan amendment, plant closure) that caused the closing of the segment, pension plan termination, or curtailment of benefits. If such a date is not readily determinable, or if its use can result in an inequitable calculation, the contracting parties shall agree on an appropriate date.

(iv) Pension plan improvements adopted within 60 months of the date of the event which increase the actuarial accrued liability shall be recognized on a prorata basis using the number of months the date of adoption preceded the event date. Plan improvements mandated by law or collective bar-

gaining agreement are not subject to this phase-in.

(v) If a segment is closed due to a sale or other transfer of ownership to a successor in interest in the contracts of the segment and all of the pension plan assets and actuarial accrued liabilities pertaining to the closed segment are transferred to the successor segment, then no adjustment amount pursuant to this paragraph (c)(12) is required. If only some of the pension plan assets and actuarial accrued liabilities of the closed segment are transferred, then the adjustment amount required under this paragraph (c)(12) shall be determined based on the pension plan assets and actuarial accrued liabilities remaining with the contractor. In either case, the effect of the transferred assets and liabilities is carried forward and recognized in the accounting for pension cost at the successor contractor.

(vi) The Government's share of the adjustment amount determined for a segment shall be the product of the adjustment amount and a fraction. The adjustment amount shall be reduced for any excise tax imposed upon assets withdrawn from the funding agency of a qualified pension plan. The numerator of such fraction shall be the sum of the pension plan costs allocated to all contracts and subcontracts (including Foreign Military Sales) subject to this Standard during a period of years representative of the Government's participation in the pension plan. The denominator of such fraction shall be the total pension costs assigned to cost accounting periods during those same years. This amount shall represent an adjustment of contract prices or cost allowance as appropriate. The adjustment may be recognized by modifying a single contract, several but not all contracts, or all contracts, or by use of any other suitable technique.

(vii) The full amount of the Government's share of an adjustment is allocable, without limit, as a credit or charge during the cost accounting period in which the event occurred and contract prices/costs will be adjusted accordingly. However, if the contractor

## 9904.413-60

continues to perform Government contracts, the contracting parties may negotiate an amortization schedule, including interest adjustments. Any amortization agreement shall consider the magnitude of the adjustment credit or charge, and the size and nature of the continuing contracts.

[60 FR 16550, Mar. 30, 1995]

### 9904.413-60 Illustrations.

(a) *Assignment of actuarial gains and losses.* Contractor A has a defined-benefit pension plan whose costs are measured under an immediate-gain actuarial cost method. The contractor makes actuarial valuations every other year. In the past, at each valuation date, the contractor has calculated the actuarial gains and losses that have occurred since the previous valuation date and has merged such gains and losses with the unfunded actuarial liabilities that are being amortized. Pursuant to 9904.413-40(a), the contractor must make an actuarial valuation annually. Any actuarial gains or losses measured must be separately amortized over a 15-year period beginning with the period for which the actuarial valuation is made in accordance with 9904.413-50(a) (1) and (2).

(b)(1) *Valuation of the assets of a pension plan.* Contractor B has a qualified defined-benefit pension plan, the assets of which are invested in equity securities, debt securities, and real property. The contractor, whose cost accounting period is the calendar year, has an annual actuarial valuation of the pension plan assets in June of each year; the effective date of the valuation is the beginning of that year. The contractor's method for valuing the assets of the pension plan is as follows: debt securities expected to be held to maturity are valued on an amortized basis running from initial cost at purchase to par value at maturity; land and buildings are valued at cost less depreciation taken to date; all equity securities and debt securities not expected to be held to maturity are valued on the basis of a five-year moving average of market values. In making an actuarial valuation, the contractor must compare the values reached under the asset valuation method used with the market value of all the assets as required

## 48 CFR Ch. 99 (10-1-05 Edition)

by 9904.413-40(b). In this case, the assets are valued as of January 1 of that year. The contractor established the following values as of the valuation date.

|  | Asset valuation method | Market     |
|--|------------------------|------------|
| Cash .....   | \$100,000              | 100,000    |
| Equity securities .....                                | 6,000,000              | 7,800,000  |
| Debt securities, expected to be held to maturity ..... | 550,000                | 600,000    |
| Other debt securities .....                            | 600,000                | 750,000    |
| Land and Buildings, net of depreciation .....          | 400,000                | 750,000    |
| Total .....  | 7,650,000              | 10,000,000 |

(2) Section 9904.413-50(b)(2) requires that the actuarial value of the assets of the pension plan fall within a corridor from 80 to 120 percent of market. The corridor for the plan's assets as of January 1 is from \$12 million to \$8 million. Because the asset value reached by the contractor, \$7,650,000, falls outside that corridor, the value reached must be adjusted to equal the nearest boundary of the corridor: \$8 million. In subsequent years the contractor must continue to use the same method for valuing assets in accordance with 9904.413-50(b)(3). If the value produced falls inside the corridor, such value shall be used in measuring pension costs.

(c) *Allocation of pension costs to segments.* (1) Contractor C has a defined-benefit pension plan covering employees at five segments. Pension cost is computed by use of an immediate-gain actuarial cost method. One segment (X) is devoted primarily to performing work for the Government. During the current cost accounting period, Segment X had a large and unforeseeable reduction of employees because of a contract termination at the convenience of the Government and because the contractor did not receive an anticipated follow-on contract to one that was completed during the period. The segment does continue to perform work under several other Government contracts. As a consequence of this termination of employment gain, a separate calculation of the pension cost for Segment X would result in materially different allocation of costs to the segment than would a composite calculation and allocation by means of a base. Accordingly, pursuant to 9904.413-50(c)(2), the contractor must calculate